an acoustic safing sensor operative to sense acoustic waves propagating through the vehicle structure during a vehicle crash event and provide a safing signal having a characteristic indicative of the sensed crash event;

an actuatable occupant protection device for, when actuated, helping to protect the vehicle occupant during a vehicle crash event; and

a controller which controls actuation of said occupant protection device in response to both said crash signal and said safing signal separately indicating the occurrence of a deployment crash event.

10. (Twice amended) A system for helping to protect a vehicle occupant, said system comprising:

a plurality of crash event sensors, each of said plurality of crash event sensors being operative to sense a different condition of the vehicle and to provide a corresponding sensor signal having a characteristic indicative of the vehicle condition sensed thereby;

an adoustic safing sensor operative to sense
acoustic waves propagating through the vehicle structure
during a vehicle crash event and to provide a safing signal
having a characteristic indicative of the sensed crash event;
an occupant protection device for, when actuated,
helping to protect the vehicle occupant during a vehicle crash
event; and



a controller connected with each of said plurality of crash event sensors, said acoustic safing sensor, and said occupant protection device, said controller determining the occurrence of a vehicle crash event and controlling actuation of said occupant protection device in response to the sensor signal from any one of said plurality of crash event sensors and the safing signal from said acoustic safing sensor separately indicating the occurrence of a deployment crash event.

14. (Twice amended) A system for helping to protect a vehicle occupant, said system comprising:

a sensor module for mounting in a vehicle, said sensor module including:

an accelerometer operative to sense vehicle acceleration and provide an acceleration signal having a characteristic indicative of the sensed vehicle acceleration; and

an acoustic sensor operative to detect acoustic waves propagating through the vehicle structure during a vehicle crash event and to provide a safing signal having a characteristic indicative of the sensed crash event;



an occupant protection device for, when actuated, helping to protect the vehicle occupant during a vehicle crash event; and

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a controller which controls actuation of said occupant protection device in response to both said acceleration signal and said safing signal separately indicating the occurrence of a deployment crash event.

17. (Twice amended) A method for controlling actuation of an actuatable occupant protection device of a vehicle, said method comprising the steps of:

sensing a vehicle crash condition;

providing a crash event signal having a

characteristic indicative of the sensed vehicle crash

condition;

sensing a coustic waves that travel through the vehicle structure during the occurrence of the vehicle crash condition;

providing a safing signal in response to the sensed acoustic waves during the vehicle crash condition;

determining the occurrence of a vehicle crash event in response to both the crash event signal and the safing signal separately indicating the occurrence of a vehicle crash condition; and

device in response to said determination.

22. (Twice amended) A system for helping to protect a vehicle occupant, said system comprising:

means for sensing a vehicle crash condition and providing a crash event signal having a characteristic indicative thereof;

means for sensing acoustic waves that travel through the vehicle structure in response to the occurrence of the vehicle crash condition and providing a safing signal having a characteristic indicative of a vehicle crash event; and

control/means for determining the occurrence of a vehicle crash event in response to both the crash event signal and the safing signal separately indicating the occurrence of a deployment crash event and controlling actuation of an occupant protection device in response to the determination.

